

Claims:

1. An Internet-based, customer services management system for use in a digital communication network comprising: a multi-technology network having at least one virtual private network (VPN) for access by an end user; a network management system for configuring said at least one VPN; a service director having a relational database and means to access said management system for retrieving configuration information therefrom and storing said information in said relational database; and a web browser having Internet-based access to said services director, said browser enabling an end user to manipulate a VPN assigned thereto.
2. An Internet-based customer services management system as defined in claim 1 wherein multi-technology network includes a plurality of VPNs made up of virtual backbone networks (VBNs) and virtual service networks (VSNs).
3. An Internet-based customer services management system as defined in claim 1 wherein said end user is a customer of a service provider of said multi-technology network.
4. An Internet-based customer services management system as defined in claim 1 wherein said end user is an administrator of said service provider.
5. An Internet-based customer services management system as defined in claim 1 wherein said relational database is in a customer service management agent having means to communicate with said services director.

6. An Internet-based customer services management system as defined in claim 5 wherein said means to communicate between said service director and said agent is a structure query language (SQL) interface.

7. A system for authorizing a user of a client to have access to a server via the Internet comprising: means in said client for inputting a user identification (ID), and user password; means in said client for storing a unique client address; communication means at said client for passing said ID, password and address to said server via said Internet in response to a request therefrom; means at said server to store information respecting said client and to compare said stored information with said user ID and user password; means at said client to store dynamic status information respecting said user, said status information being one of enabled, disabled or active; and means to authorize log in of said user if said ID and password agree with said stored information and if said user status is enabled.

8. A system as defined in claim 7 wherein said status information is changed to active when said user is granted access to said server.

9. A system as defined in claim 7 wherein said user is denied access to said server if said status information is disabled.

10. A system as defined in claim 7 wherein if said status information is active said server compares said client address with said stored information and if said address agree said user is logged onto said server, otherwise said user is denied access.

11. A system as defined in claim 7 wherein said client is an end user of an Internet-based customer service management system and said server is a service director having means to manipulate a user's virtual private network in a multi-technology network.

12. A method of controlling a client user's access to an Internet based server, comprising: providing means at said client for said user to input a user identification and a user password; providing means at said client for storing a client address; providing means at said client for passing said user identification, said password and said client address to said server via said Internet when such information is requested by said server; providing means at said server for storing said user identification, said user password and said client address; providing means at said server for recording dynamically, status information respecting said user and said client, said status information being one of enabled, disabled or active; providing means at said server to compare said stored user identification, said password and said address with information input passed to said server from said client; and providing means at said server to allow said user to logon to said server if said user identification and said password agree with said stored information and said status information is active.

13. A system for providing context sensitive help information on a client's browser screen in response to a help request from a user comprising: a two frame window on said browser screen including a content frame window and a dashboard frame window; a help button associated with said dashboard frame window; and link means between said client and a server whereby activation of said help button

retrieves help information relating to subject matter displayed on said content window from said server.

14. A system as defined as defined in claim 13 wherein said server is a customer services management (CSM) services director (SD) in a multi-technology digital network.

15. A system for providing a selected user of an Internet-based web browser access to an external third party application through a web server comprising: means in said web server to configure information respecting said external third party application in order to provide access thereto by selected users; means at said web browser for inputting user specific login information; means at said server for receiving said user login information and determining if said user is one of said selected users; means in said server for generating and returning to said browser an indicator for display on a dashboard on said browser if said user is one of said selected users; and means to retrieve said external third party application for use on said browser if access thereto is permitted.

16. A system as defined in claim 15 wherein said configuration information includes; user status, third party application name, image path, URL of said third party application and location of said third party application on said browser.

17. A system as defined in claim 15 wherein said login information includes user identification, user name, customer name and community string or virtual private network (VPN).

18. A system as defined in claim 17 wherein external third party applications which may be accessed by said

browser are displayed on said dashboard in response to a user login.

19. A system for providing a user of an Internet-based communication system selective access to information relating to other users comprising: a server having means to store a list of users including user access type, identification, password and name; a user client having means for a user to input identification and password information; and means at said server to compare said user input information with stored information and based on user verification and user access type provide said user with a list of other users for which said user has access.

20. A system as defined in claim 19 wherein said access type is one of internal, external or system administration.

21. A system as defined in claim 20 wherein a system administration access type allows a service provider end-user to configure said system respecting all users.

22. A system as defined in claim 20 wherein an internal access type allows said user to have access to information respecting all users.

23. A system as defined in claim 20 wherein an external access type allows said user access to information respecting selected users.

24. A system as defined in claim 19 wherein said system is customer service management system (CSM), said server is a CSM service director (SD) and said user operates an Internet based browser.

25. A system as defined in claim 24 wherein said other users are customers of said users.

26. A system as defined in claim 24 wherein said service director stores a list of users and a list of said user's customers, said customer's account information being available to said users depending on user access type as stored in said server.

27. A system for storing information respecting a plurality of applications to a shared memory comprising: a volatile memory for storing said information; means to allocate space in said volatile memory to selected ones of said plurality of applications; identification means for identifying said space allocated to each of said selected applications; backup means to periodically transfer stored information from said volatile memory to non-volatile memory; and means to retrieve information from said non-volatile memory at system startup.

28. A system as defined in claim 27 wherein said volatile memory is a random access memory (RAM).

29. A system as defined in claim 27 wherein said non-volatile memory is a hard disk storing device.

30. A system as defined in claim 29 wherein said means to allocate space is a daemon process.

31. A system as defined in claim 27 wherein said backup means stores said information to said non-volatile memory at system shut down.

32. A system as defined in claim 31 wherein said shared memory is in a server in an Internet based communication system.

33. A system as defined in claim 32 wherein said communication system is a customer service management system (CSM) and said server is a CSM service director.

34. An Internet-based, customer services management system for use in a digital communication network comprising: a multi-technology network having at least one virtual private network (VPN) for access by an end user; a network management system for configuring said at least one VPN; a service director server having a relational database and means to access said management system for retrieving configuration information therefrom and storing said information in said relational database; a web browser having Internet-based access to said services director, said browser enabling an end user to manipulate a VPN assigned thereto; and report storage means to store data displayed on a screen at said browser to said server, said report storage means including means to automatically store said displayed data in a temporary memory under a temporary file name at said server and means to store said data in a permanent memory in a directory in said server in response to a request by a user of said browser.

35. A system as defined in claim 34 wherein said report includes performance data respecting a VPN.

36. A system as defined in claim 35 wherein currently displayed performance report information on said browser screen is continually stored in temporary storage under a temporary file name in a hidden field in a generated HTML page said information being returned to said server and

stored in a permanent file under a permanent file name in response to a request by said user to export said performance report information.

37. A system as defined in claim 36 wherein said temporary file is deleted upon logging out.

38. A system as defined in claim 36 wherein current date and time information is included in said permanent file name.